Title: Integrated education - spatial organization of classes

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Integrated Education – Spatial Organization of Classes

Edukacja integracyjna – przestrzenna organizacja zajęć

Keywords:
early school education, space, student, class, disability, arrangement

Summary: Students often struggle with various school difficulties. Can the reason be the classroom's poorly organized space? Searching for the answer to this question is one of the important premises of the paper.

The spatial layouts described in the article, at the stage of primary education, influence such processes as communication between students, their education and upbringing, shaping their mutual relations, transferring messages, shaping skills, and creating attitudes and identity.

The purpose of this article is to show the spatial arrangements selected by the teachers of integrated classes and to indicate their motivations behind making a specific choice.

The first part of the article contains an introduction and review of the literature on the selected topic. The second part presents the results of own research. The study ends with conclusions.

Słowa kluczowe:
edukacja wczesnoszkolna, przestrzeń, uczeń, klasa, niepełnosprawność, układ

Streszczenie: Uczniowie często borykają się z różnymi trudnościami szkolnymi. Czy ich powodem może być źle zorganizowana przestrzeń? Poszukiwanie odpowiedzi na to pytanie stanowi jedną z ważniejszych kwestii prezentowanych w tekście.

Opisana w artykule przestrzeń na etapie edukacji wczesnoszkolnej pełni funkcję miejsca, które sprzyja procesom takim jak: komunikacja między uczniami, kształcenie i wychowanie, kształtowanie ich wzajemnych relacji, przekazywanie wiadomości, kształtowanie umiejętności, kreowanie postaw i tożsamości.

Celem tekstu jest ukazanie układów przestrzennych, na które zdecydowali się nauczyciele klas integracyjnych, oraz wskazanie ich motywacji do dokonania określonego wyboru.

Pierwsza część artykułu zawiera wprowadzenie obejmujące przegląd literatury w wybranym temacie. W kolejnej zostały ukazane wyniki badań własnych. Całość zamykają konkluzje.

Introduction

Currently, taking into account the particular abilities and requisites of students with special educational needs is an important aspect of education. The full development of the child with such needs is dependent on the favorability of all the participants in the educational process. Such education teaches responsibility, emotional sensitivity, kindness and support for another person (MEN, 2010, pp. 8, 18).

The words of Stefan Wołoszyn (1959, pp. 5–6) invariably fit the context of early childhood education: "Primary education is not self-sufficient, but mainly introduces and improves further education. It is [...] the foundation on which it is possible to build an edifice of education preparing one for direct and useful participation in life." Therefore, the better the educational results of a student at the level of primary education, the better teaching fulfills its tasks.

The child's activity and involvement in the learning environment are crucial for planning and carrying out integrated classes. Each student has the right to experience school education as an opportunity to shape their competences and explore the world. They can meet their own expectations and achieve personal successes, provided the classes are meaningful for them, require taking specific actions, and lead to learning something that the student finds interesting and important (cf. Bałachowicz, 2017, p. 25).

On the other hand, the organization of the physical environment may either favor the acquisition of knowledge and the efficient performance of a given activity or, on the contrary, make it difficult or even impossible.

Educational space can be understood as a dimension of social space in which elements of the culture of a given social system distinguish it from other systems (Modrzewski, 2008, pp. 106–107).

For years, there have been little changes in the spatial organization of Polish schools. Classes are usually assigned a single, classic layout – evenly arranged desks (single or double), facing the teacher and the blackboard. The classroom can be considered the center – the most important place in the school space. It is here that important development processes have taken place over the years, ones which are not possible in private spaces. It is in the classroom that students play various roles, take indicated seats and *become* the class, thus losing their individual identity. The appearance of students with disabilities in our educational system, however, has resulted in a partial departure from traditional teaching. A school built on the ideals of educational humanism strives for the proper access to educational and social spaces for all students (Nalaskowski, 2002, p. 48).

Currently, it is in the literature on mainstream education – rather than special education – that one can find more schemes for the spatial layout of the classroom. The spatial layouts related to integrated education are described, among others, by Zenon Gajdzica (2008a) and Joanna Popławska and Bożena Sierpińska (2001); they include the arrangement of tables, the blackboard, a place for rest and, above all, the arrangement of students with special educational needs in relation to their fully able colleagues. The spatial layout can be adapted to the type of lessons and the kind of activities carried out.

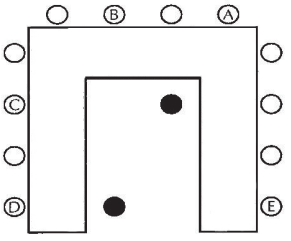
In the examples set forth by Popławska and Sierpińska (2001, p. 19) provided below, the following indications are used:

- Teacher
- Student

A – a student with hearing impairment
B – a student with visual impairment
C – a student with intellectual disability
D – a student with cerebral palsy (or in a wheelchair)
E – a student with conduct disorder

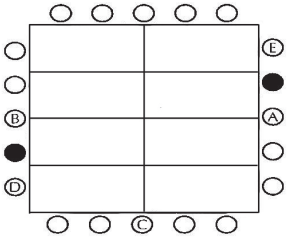
There are advantages and disadvantages to each layout. Here are the authors' seven suggestions:

1. Horseshoe layout



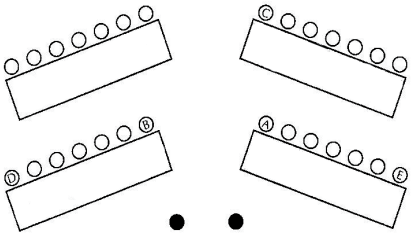
Disadvantages: arrangement favorable to small groups.
Advantages: adequate space for the teacher's work with students; teacher's help and control are more extensive.

2. Solid square layout



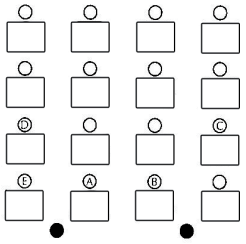
Disadvantages: formal layout taking up a lot of space.
Advantages: greater activation, reduced distance, ideal for teamwork.

3. Herringbone layout



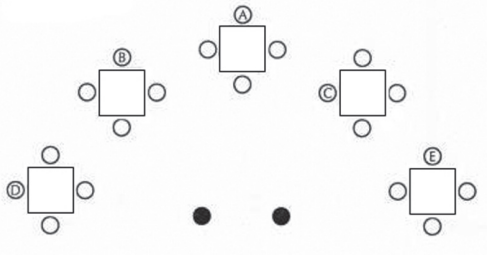
Disadvantages: the arrangement can cause competition and division between groups.
Advantages: good communication between groups, perfect layout for workshops and teamwork.

4. Classic classroom layout



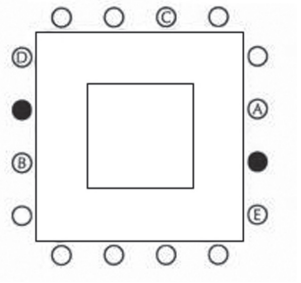
Disadvantages: Students may feel too exposed.
Advantages: teacher's access to students, easy individual contact, arrangement recommended for individual work.

5. Bistro-style layout



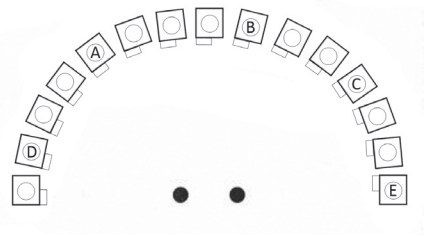
Disadvantages: no eye contact with pupils, "subgroups" are formed, teachers have difficulty controlling the class.
Advantages: the system is recommended for workshops and problem-solving activities.

6. Square layout



Disadvantages: impaired eye contact, unsuitable for informal occasions.
Advantages: arrangement suitable for group discussions, all positions taken are treated equally, no top position in the arrangement.

7. Chairs with mini-desktops



Disadvantages: layout not suitable for left-handed students and for writing tasks.
Advantages: possibility to freely arrange chairs, popular arrangement for informal classes and interpersonal exercises.

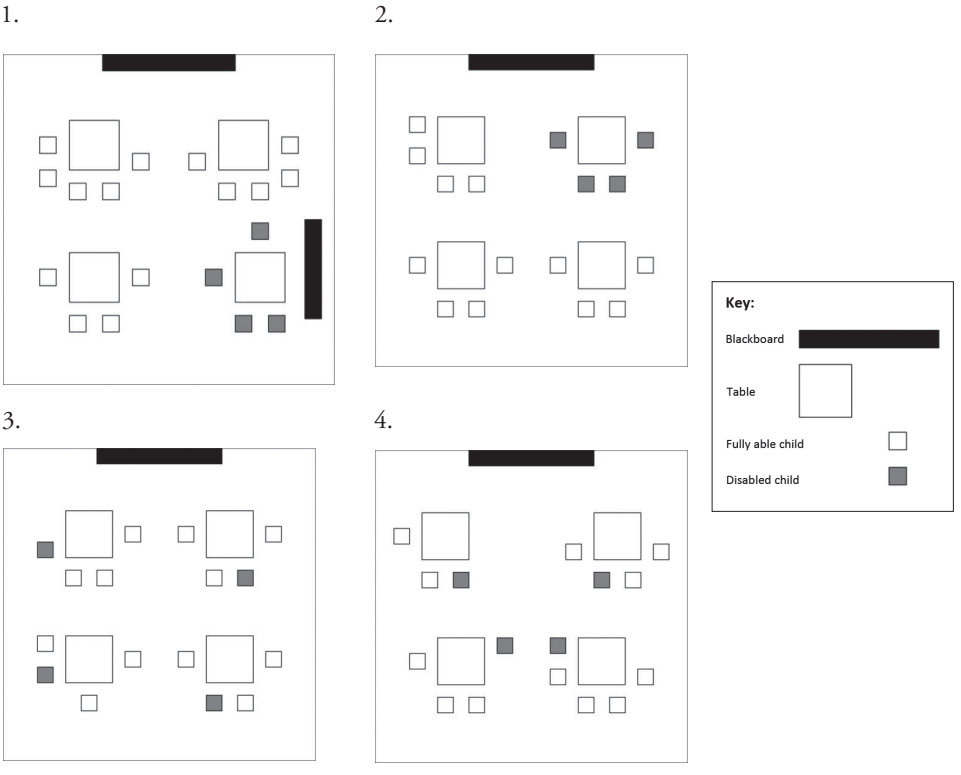
Source: Popławska & Sierpińska, 2001, pp. 20–23.

The spatial arrangement of students in the classroom can be considered from many perspectives. There are different ways of arranging tables and equipment and organizing a classroom. As Gajdzica (2008b) writes, the main questions that arise are: "What place should students have in relation to each other (should they sit together or separately)?" and "Should they be placed in the center of the classroom (near the blackboard) or on the sides?" In order to answer these questions, one should consider the nature of the class, the

educational concepts adopted by the teachers, as well as specific dysfunctions and character traits of students with disabilities. Gajdzica has developed four spatial layouts intended for students of integrated classes.

The layouts focus solely on the placement of students in the classroom and are narrowed down to the standard arrangement of tables, the location of the blackboard (or tables – the first diagram) and the indication of seats for fully able and disabled students. Due to the fact that the teacher often moves during the lesson they have not been included in the layouts; the teacher's desk, however, is located close to the blackboard (Gajdzica, 2008b, pp. 268–269).

Below, there are four schemes of the spatial arrangement in the integrated class: *isolation* (1), *exposure* (2), *maximum integration* (3), *and limited integration* (4).



Source: Gajdzica, 2008a, p. 225.

Isolation – layout 1
Isolating students with disabilities from non-disabled students is not conducive to integrated education. The advantages of this scheme include the fact that students with more severe disabilities are given a separate educational material. If this is the case, a distinguishable space for students with moderate disabilities, hyperactive students or ones with serious difficulties in communication should be set aside. Perhaps, however, it would be better to conduct such classes in a separate classroom or create a special class in a mainstream school. Due to this type of dilemma, the system is used very rarely.

Exposure – layout 2
This is the most frequently used arrangement. The name of the layout suggests that it is the students with disabilities who are distinguished and occupy places in the front part of the class. Similarly to the first system, disabled students are assigned to one place and learn at a common table. Differentiation of students' disabilities is disadvantageous in this layout, while constant teacher's control and no marginalization can be seen as advantages. Using this layout with children with slight developmental disorders, when their reactivity is close to the average, may be positive. If there are students with disabilities in the class for whom individual work with a teacher is recommended, difficulties may arise in such an arrangement (Gajdzica, 2008b, p. 270).

Maximum integration – layout 3
This arrangement aimed at maximum integration is also used very often. The advantage of such an organized space is that fully able students can interact with students with disabilities. With the consent of the teacher, learning is based on equal rights for all students. The arrangement promotes socialization and friendly interactions. The disadvantage of the system is the space of the SEN teacher. They are forced to move quickly around the classroom, work with students with disabilities "over the heads" of other children, which hinders the educational process. In such a space, it is important to take into account specific dysfunctions of the students (Gajdzica, 2008a, p. 227).

Limited Integration – layout 4

This last arrangement is used less frequently. The advantages of earlier models are reproduced in it, while there are almost no disadvantages. Pupils with disabilities interact with their peers at one table where interactions take place. Isolation and prejudices are eliminated through communicative integration. A teacher can quickly convey information, solve a problem or discreetly control students. This can be beneficial, first of all, to students with significant thinking difficulties, those excessively excitable and ones with communication disorders (Gajdzica, 2008a, p. 228).

Summing up, *exposure* (the second system) should be more thoroughly analyzed and tested because it is considered unfavorable, while it is one of the most frequently used models in integrated education. On the other hand, *limited integration* (the fourth layout) is the most favorable spatial layout. Due to the fact that it remains unnoticed by teachers, it is used very rarely (Gajdzica, 2008b, p. 271).

The spatial organization of the classroom significantly determines the level of students' comfort, the reception of the transmitted content, and the development of mutual relations. It is up to the people who choose the right layout how helpful and how harmful it will be to the users. Properly arranged space includes, among others, getting rid of "information noise" – clearly communicated messages have to be tailored to the needs of students, especially learners with hearing impairments; places should be properly adapted for pupils with visual impairments; a calm down corner should be devised for hyperactive students; arrangement of the classroom (wall colors, wall papers, teaching aids, and other objects) should be cheerful, study-friendly and not overly distracting.

Own research concept

The aim of the research was to study the spatial arrangements of integrated classrooms at the stage of primary education. The method used was a questionnaire conducted with SEN teachers. The questionnaire was prepared in writing and the questions were structured concisely and comprehensively.

There were eight open-ended questions in the questionnaire, which consisted of two parts: a substantive one (questions to the respondents) and a record (specifying the teachers' seniority and education). An appendix with a set of

spatial schemes found in the literature of the field was added to the questionnaire.[1] In most cases, the questions addressed to the teachers allowed them to express their opinions and choose the layout/s from the set provided in the appendix.

The research was conducted in the area of the Silesian Voivodship, where 139 surveys were distributed in 54 schools with integrated classes (data on schools based on the database of schools and educational institutions: si.kuratorium.katowice.pl; 4 schools listed there do not exist, 15 did not agree to take part in the research).

Own research results

The survey results show four graphs that relate to the teachers' choices in relation to the most common spatial layouts. Two of them show the reason why a teacher made a particular choice, which I call motivation.

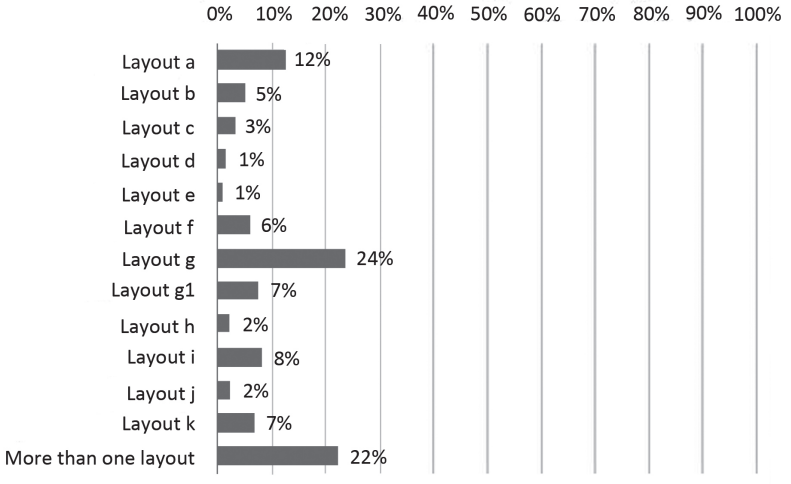


Chart 1.
Preferred layout for individualized activities (N = 139).
Source: own study based on doctoral research.

[1] The layouts used in the questionnaire are also included in the appendix at the end of the article.

The classical arrangement of the classroom is still the leading one in integrated education in individualized group activities. Interestingly, in this type of class, teachers prefer to arrange space using more than one layout. They are happy to introduce a horseshoe layout to individualized classes, the advantage of which is the appropriate space for the teacher to work with students, which makes it easier for them to help and monitor learners. In this type of class, according to the teachers, the solid square layout, taking up a lot of space, and the herringbone layout, which, as the authors of the scheme indicate, may be the cause of competition and divisions between groups, do not work at all (Popławska & Sierpińska, 2001). In this form of class, teachers also do not prefer the h or j layout, which are structured to accommodate group activities.

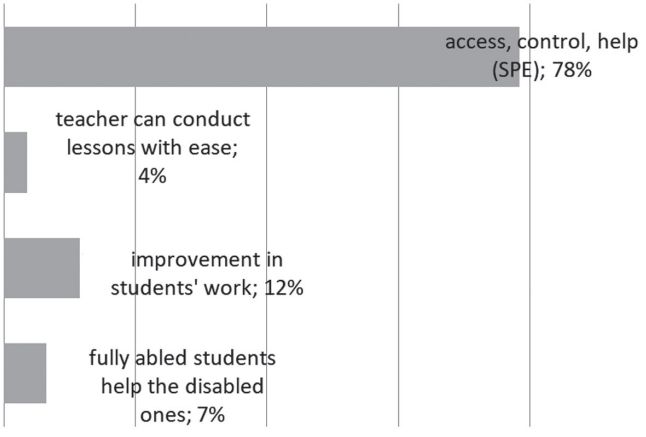


Chart 2.
Preferred layout of individualized classes – motivation (N = 139).
Source: own study based on doctoral research.

In a typical classroom layout, students' desks are usually scattered throughout the room, so the teacher may feel comfortable thanks to better access to the student and the possibility of quick control. According to the interviewers, special educational needs are mostly satisfied in this spatial arrangement.

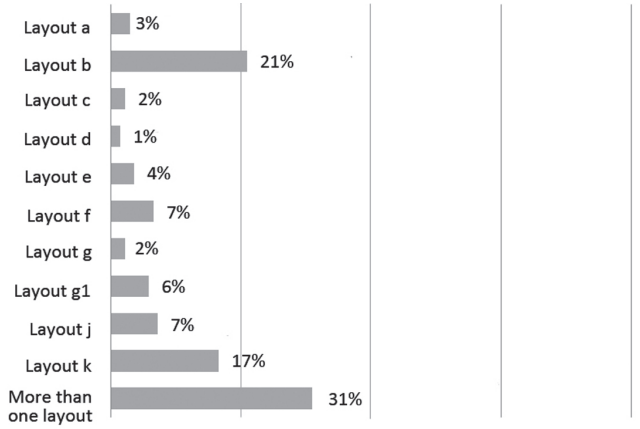


Chart 3.
Preferred group layout (N = 139).
Source: own study based on doctoral research.

In group activities (as in individualized ones), teachers prefer more than one layout, which was the answer most commonly given. In group activities, the recommended layouts are the bistro-style layout (particularly suitable for workshops) and the k layout (limited integration), which undoubtedly enable the interaction of students with disabilities with their peers, grant the teacher a quick access to students and facilitate discreet control.

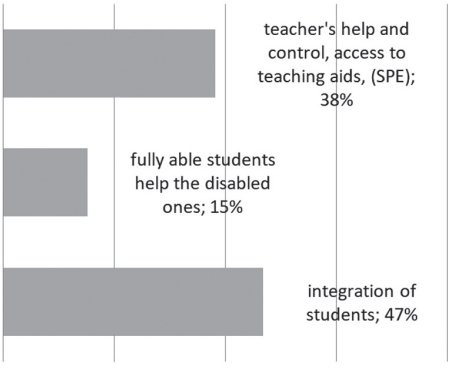


Chart 4.
Preferred layout for group activities – motivation (N = 139).
Source: own study based on doctoral research.

The main goal of integrated education is to mix students with disabilities with their peers. Spatial systems should be designed so as to favor the integration of students and to a lesser extent to encourage the support of students with disabilities by healthy students. It is important that non-disabled students do not feel responsible for their colleagues.

Conclusions

In the field of special education, the "heart" of the school, namely, the classroom, has been neglected for years. Classrooms are often poorly arranged, which results in low learning outcomes, impaired communication between students and lack of classroom integration. The space in which users are present significantly influences the effects of teaching and learning as well as the students' well-being and behavior.

This research is an attempt to study the currently existing spatial arrangements of the integrated classrooms at the stage of primary education in the Silesian Voivodeship and the motivations behind the choices of given layouts by teachers. I hope that the conducted research contributes to the extension of knowledge about integrated education to include the issue of space and thus helps to reduce the lack of sufficient information on the subject. The available literature still lacks not only the description of space, but also the indicators of its structure determined by analyzing empirical data. There are insufficient descriptions and advice regarding not only what the classroom space should look like, but also what its relationship with the achievement of educational goals is and how it influences socialization in the peer group of students, the atmosphere in the classroom, the SEN teachers' work, the emergence of difficult situations (tensions, stigmatization), and information deprivation (by creating excessive social distance).

My goal here was to draw the readers' attention to the current arrangements and problems related to them. It is worth remembering that integrated education is only one of the possible choices. It is a right, not a prescription or a norm in education. The choice made by parents, despite many advantages, is not always good for all children with disabilities – especially for students with moderate and severe intellectual disability. Each of these students needs a competent, caring teacher, reliable specialists, appropriate teaching aids, equipment and, above all, carefully planned classroom space. I hope that the presented information is the beginning of research on this area of integrated

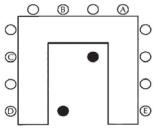
education and that it will be of use to many people operating in the field of special education.

Attachment

Spatial layouts – schemes by Popławska and Sierpińska (2001, p. 19)

• Teacher
◦ Student
A – a student with hearing impairment
B – a student with visual impairment
C – a student with intellectual disability
D – a student with cerebral palsy (or in a wheelchair)
E – a student with conduct disorder

a)



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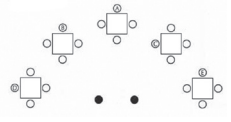

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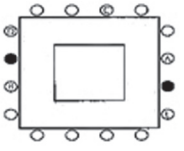

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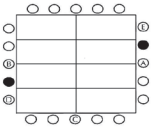

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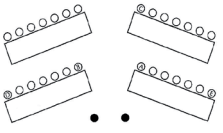
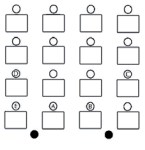
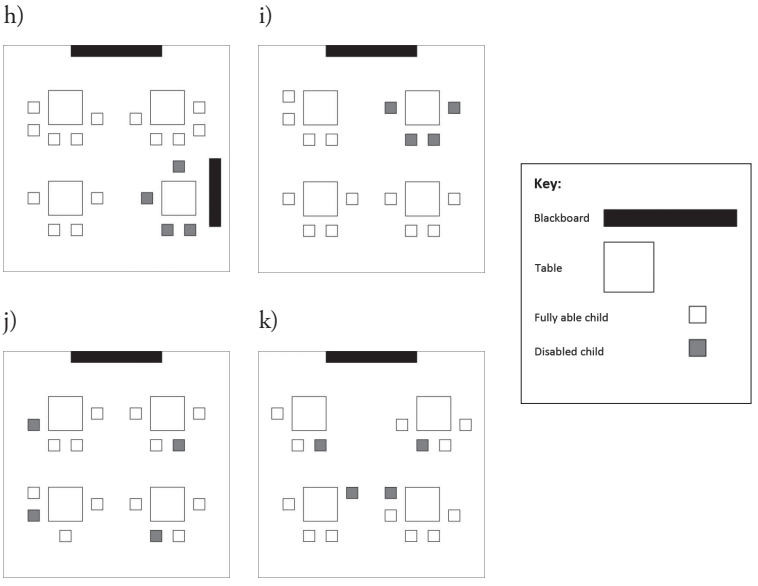


f)

g) single desks, g1) double desks



Spatial layouts – schemes by Gajdzica (2008a, p. 225)



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